

Title (en)

SENSOR ARRANGEMENT FOR DETECTING A DEFLECTION OF A WIRE ELECTRODE

Title (de)

SENSORANORDNUNG ZUM ERFASSEN EINER AUSLENKUNG EINER DRAHELEKTRODE

Title (fr)

AGENCEMENT DE CAPTEUR PERMETTANT DE DÉTECTER UNE DÉVIATION D'UNE FIL ÉLECTRODE

Publication

**EP 3764054 B1 20220713 (DE)**

Application

**EP 20167471 A 20200401**

Priority

DE 102019210301 A 20190711

Abstract (en)

[origin: CN112212777A] The invention relates to a sensor device (10) for detecting a deflection ( $\Delta X1$ ,  $\Delta Y1$ ) of an electrode wire (1) of a wire cutting machine in a first measurement plane (T1) with respect to a first reference point (O1) lying on a reference axis (O). The sensor device (10) has a coil element device (18). The coil element arrangement (18) has at least one first to fourth coil element (20.1 to 20.4) arranged in a first measuring plane (T1). The first to fourth coil elements (20.1 to 20.4) are arranged in the first layer (A1) and the second layer (A2) such that they are opposite each other in pairs in the first and second deflection directions (X, Y) with respect to the first reference point (O1). The first plane (A1) and the second plane (A2) each extend parallel to a reference axis (O). The first and second layers (A1, A2) are arranged at a distance from each other and opposite each other with respect to the first reference point (O1) in the second deflection direction (Y).

IPC 8 full level

**G01B 7/00** (2006.01); **B23H 7/10** (2006.01)

CPC (source: CN EP)

**B23H 7/02** (2013.01 - EP); **B23H 7/06** (2013.01 - CN); **B23H 7/10** (2013.01 - EP); **G01B 7/00** (2013.01 - CN); **G01B 7/02** (2013.01 - CN); **G01B 7/24** (2013.01 - EP); **G01B 7/30** (2013.01 - CN); **G01D 5/12** (2013.01 - CN); **B23H 2500/20** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3764054 A1 20210113**; **EP 3764054 B1 20220713**; CN 112212777 A 20210112; DE 102019210301 A1 20210114; JP 2021014007 A 20210212; JP 7469945 B2 20240417

DOCDB simple family (application)

**EP 20167471 A 20200401**; CN 202010662121 A 20200710; DE 102019210301 A 20190711; JP 2020069013 A 20200407